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A FURTHER NOTE ON THE GENERIC NAMES
OF THE MEPHITINÆ.

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A few months ago Mr. Arthur H. Howell, in his 'Revision of the Skunks of the Genus *Chincha*,'* proposed to substitute the name *Chincha* Lesson, 1842, for the group of Skunks which had previously for a century been known as *Mephitis* Cuvier (1800), and to transfer the name *Mephitis* to the group which for thirty-six years had been known as *Spilogale* (Gray, 1865). The basis for this transfer seeming to me invalid, I soon after gave my reasons for this belief in a paper entitled 'The Generic Names of the Mephitinæ.'† Mr. Howell, in a recent article entitled 'The Generic Names of North American Skunks,'‡ endeavors to justify his action in regard to the case of *Chincha*, and also in reference to several minor points respecting which we hold different opinions. Fortunately, or unfortunately, these disputed points nearly all hinge on a wretched plate published by Catesby in 1731, and an equally inaccurate and vague

*North American Fauna, No. 20, August 31, 1901.

†Bull. Am. Mus. Nat. Hist., XIV, pp. 325-334, Nov. 12, 1901.

‡Proc. Biol. Soc. Washington, XV, pp. 1-9, with a plate, Feb. 18, 1902.

description of an animal he called *Putorius americanus striatus*, which became in 1758 the chief basis of Linnæus's *Viverra putorius*. This name, with a quasi-fictitious basis, as has been recognized by all modern writers on the Skunks, having been introduced into systematic literature naturally held its place in the writings of a long list of later indiscriminate compilers, but which has been almost as uniformly rejected by more critical students as having no justifiable basis.

As Catesby's description and plate, and more especially the latter, are the basis of the present controversy it may be well to compare, in parallel columns, Mr. Howell's opinion and mine as to how such a gross caricature of nature could have originated.

ALLEN, Nov. 1901.

"As stated by Bangs....., it [Catesby's *Putorius americanus striatus*] is composite, being apparently 'a combination of *Mephitis mephitis* and *Spilogale ringens*.' Catesby's figure, however, has little resemblance to either, and may fairly be considered as drawn off-hand from a confused recollection of these two animals, and hence factitious. (*L. c.*, p. 326, 327.) ".....they [Catesby's figure and description] must have been based, to take the most charitable view of the case, on a confused recollection of the little spotted skunk and the common skunk, and not on any animal he ever met with in nature." (*L. c.*, p. 333.)

HOWELL, Feb. 1902.

"Although neither the figure nor the description furnishes an accurate portrayal of either of the two skunks inhabiting the region where he [Catesby] travelled, the reference of both plate and description to *Spilogale* seems unquestionable....." (*L. c.*, p. 3.)

"When we consider that Catesby's drawing was probably made from his recollection of an animal seen afield, perhaps at some distance, and probably in the dusk of twilight, the differences between the figure and the real animal become unimportant. It must be remembered that it is not necessary to show that his figure is a correct representation of a *Spilogale*: the question is simply, could it have been based on anything else?...." (*L. c.*, pp. 3 and 4.)

As shown above, Mr. Howell admits that Catesby's figure and description do not "accurately" portray either of the two skunks of North Carolina, and that the "drawing was probably made from his [Catesby's] recollection of an animal seen afield

perhaps at some distance, and probably in the dusk of evening;" which is equivalent to my statement that the drawing was made off-hand from a confused recollection of the two animals. Thus far Mr. Howell's opinion and estimate of the value of Catesby's description and figure are in perfect agreement with my own. But he assumes, nevertheless, that both "unquestionably" relate to *Spilogale*, and on this assumption, as already said, his contention and conclusions solely rest; while I claim that they represent nothing in nature and that any names based on them by later systematists have no standing in nomenclature and should be treated as though they had no existence. This leaves Cuvier's genus *Mephitis*, as originally constituted, a monotypic group, unless we admit Kalm's description of his Pennsylvania skunk as affording a basis for a second species, in which case the two species admitted by Cuvier are strictly congeneric, the genus containing no element of *Spilogale* or *Conepatus*, and hence is not open to restriction.

Mr. Howell has made a most welcome and valuable contribution to the controversy by illustrating his paper with a reduced copy of Catesby's figure, and giving with it, on the same plate for comparison, illustrations of typical examples of *Mephitis* and *Spilogale* from the region in question. Catesby's animal, with five long, narrow, white stripes running the entire length of the body and one of them continued far down on the tail, and its otherwise wholly black tail, as long as the body, broad, bushy, and without a white tip, and the two light stripes on the head, is sufficiently in contrast with either form of the skunk to warrant both Mr. Howell's and my own statement that it is essentially a figment of Catesby's imagination or a fabrication based on a treacherous memory. It was deserving of serious consideration only in the early days of zoology, during the middle and latter part of the eighteenth century, when traveller's tales and the crude observations of unscientific writers formed the basis, in lieu of specimens, of so many of the 'species' of the early systematists. Their work, done in good faith and with the laudable intent of systematizing the supposed natural history information of that day, proves a most perplexing legacy to modern zoologists, who have the task of separating fiction and error from the truth, and of saving, wherever

possible, by due restriction, the names bestowed by the fathers of zoology upon composite species.

But to return to the case of Catesby's *Putorius americanus striatus*. Mr. Howell says: "The question is simply, could it have been based on anything else [than *Spilogale*]?" This question I have already answered in the negative by saying it "must have been based, to take the most charitable view of the case, on a confused recollection of the little spotted skunk and the common skunk;" or, as Mr. Howell quite as well puts it, on "his recollection of an animal seen afield, perhaps at some distance, and probably in the dusk of twilight." Is this a legitimate basis for the overturning of two properly founded and long-accepted genera, and for the introduction of corresponding changes in the names of some forty to fifty species and subspecies? Really the drawing, taken all in all, quite as well fits the common skunk as the spotted skunk; five white stripes, some of them running from the nose to the base of the tail and one of them continued over the basal third of the tail, do not very strongly suggest four white stripes limited to the front half of the body, succeeded on the posterior half by a series of interrupted transverse white stripes, nor does the very long broad wholly black tail (except for the basal stripe) suggest the long white tail tip of either skunk. But why should we particularize when there is scarcely a color marking on Catesby's animal that is like any marking on any known skunk. Its being a black animal with longitudinal white stripes is all there is about it that suggests any form of skunk. If the ground color had not been described as black, and the figure had been labelled Striped Ground Squirrel, it could quite as well have been accepted as a *Tamias* as a *Spilogale* or a *Mephitis*.

Here is certainly a case for the application of Canon XLIV of the A. O. U. Code of Nomenclature, which reads: "In determining the pertinence of a description or figure on which a genus, species, or subspecies may respectively rest, the consideration of pertinency is to be restricted to the species scientifically known at the time of the publication of the description or figure in question, or to contemporaneous literature." In the present case, of course, the description or name in question is Linnæus's *Viverra putorius*. And at this late day when the

fauna of Catesby's region is well-known, Mr. Howell asks us, What else can Catesby's figure represent if it is not a *Spilogale*?—at the same time admitting that it does not represent any known animal.

It is a pity to waste so much ink and paper over nomenclatural details, but there are a few other points in Mr. Howell's ingenious effort to make black pass for white, and *vice versa*, to which attention should be called. He says, for instance: "The name *Mephitis putorius*, based on Catesby's species, was first used by Dr. Coues, who applied it in a broad sense to all the little spotted skunks of North America. Some years later, the name was definitely fixed by Dr. Merriam to the Florida species. Its use by these two authors would seem to be sufficient to establish the name on a firm basis. The only way in which it can now be overthrown is to show beyond question that it cannot possibly apply to a *Spilogale*, which has not been done." To take up the last point first, if it had not been done before Mr. Howell wrote his last paper on the *Chincha* case, this paper, with his admirable plate of comparative figures, and his own admissions, have most effectually accomplished it.

As Dr. Coues was the first to revive *Viverra putorius* (as he was to revive many other untenable names), how about the action of previous authors, those who, like Dr. Coues, were investigators and not mere compilers, who repudiated the name, as, for example, Gray, Lichtenstein, Wagner, and many others, not to mention those who ignored it as simply uncitable, as Baird, among many others. As early as 1838 Lichtenstein went into the matter at length and rejected the name as unworthy of serious consideration. Even Coues*, in speaking of *Viverra putorius* Linn., says: "Diagnosis agrees sufficiently with *Spilogale*;" but adds, "general bearing rather upon *Mephitis mephitica*." But the context shows that he was referring to Linnæus and not to Catesby, Linnæus's diagnosis being "V. fusca lineis quatuor albidis dorsalibus parallelis;" so that, by a slip, or otherwise, Linnæus gave *four* white stripes and not *five*. His diagnosis thus does not agree with Catesby's de-

*Fur-bearing Animals, 1877, in the synonymy at the beginning of page 239.

scription and figure; yet, as Coues says, it was "based primarily upon *Putorius americanus striatus* Catesby." The only other author Linnæus cited under this name in 1758 was Kalm, whose account of the external characters of the Pennsylvania skunk is a paraphrase of Catesby's. This slip of Linnæus's in paraphrasing Catesby would of course greatly help the case for *Spilogale* were it not that there is no other source than Catesby as the basis for his diagnosis. Coues was evidently influenced by this error in accepting *putorius*, as he refers repeatedly in his discussion of the matter to the "four stripes" mentioned by Linnæus, while it is not at all evident that he actually consulted Catesby in this immediate connection.

As said in my former paper, the two Linnæan skunk names, *Viverra memphitis* and *V. putorius*, are both equally uncitable, and, aside from perfunctory compilers, were so treated by all scientific writers prior to Coues's attempted revival of *putorius* in 1875.

Mr. Howell says (p. 6), that the question of the type of *Mephitis* was not affected by the revisions of the genus by Gray (1837) and Lichtenstein (1838), because they simply removed from the group to new genera species which had been placed under *Mephitis* by later authors. Mr. Howell thus fails to grasp the fact that these removals were in effect a restriction of the genus *Mephitis* to its original components, and that therefore Lesson, in 1842, could not substitute a new genus *Chincha* for the old and already repeatedly restricted genus *Mephitis*. Nor does he seem to recognize the impropriety of his attempt to enforce this substitution, and his own transference of *Mephitis* to the *Spilogale* group, on the basis of a nominal species rejected as having no proper foundation by all investigators of the matter down to Coues, who was influenced, as already shown, by Linnæus's evident lapsus in writing *quatuor* where he should have written *quinque*, and not by the real character of Catesby's description and figure on which Linnæus's diagnosis must, in the nature of things, have been based. Catesby says his animal had a median white stripe running from the head to the rump, "with four others, two on each side, running parallel with it." Evidently Linnæus in compiling his diagnosis must have carelessly missed the reference to the median white stripe, or else

wrote *quatuor* in lapsus for *quinque*.* If Coues had taken Catesby's description and figure instead of Linnæus's erroneous and repeatedly corrected diagnosis, it seems very improbable that he would have revived *Viverra putorius* for a species of *Spilogale*.

Again, Mr. Howell says that the reason Cuvier excluded *Viverra zorilla* from his Mouffettes is because Cuvier "considered it to be a weasel from the Cape of Good Hope and not a skunk at all." It is true, as I have before shown, that Cuvier believed that *Viverra zorilla* was a South African animal, but it is also true that he had specimens of it, and probably really excluded it on the same grounds that lead present day naturalists to exclude it from *Mephitis* and assign it to a separate genus *Spilogale*, namely, the character of the skull and teeth.† So, as said in my former paper,† he purposely excluded from his Mouffettes the only then known species of *Spilogale*, thus rendering it impossible to transfer the name *Mephitis* to the *Spilogale* group, as Mr. Howell has attempted to do.

Mr. Howell's contention that Cuvier's *Mustela putida* is based directly on *Viverra putorius* Linn. I am unwilling to concede, but hold that its real basis is the Conepate of Buffon. The two, however, have the same basis, Catesby and Kalm, but the Cone-

*It is important to note in this connection that Schreber, Erxleben, Zimmermann, and Gmelin wrote *quinque* and not *quatuor*, and that Schreber, evidently with Catesby's work before him, corrected Linnæus in quoting his diagnosis, as shown by the following literal transcript from Schreber: "*Viverra putorius*; *Viverra fusca* (vielmehr nigricans), lineis quatuor (oder eigentlich quinque) dorsalibus parallelis albidis. LINN. Syst. [ed. 12] p. 64, n. 4."—*Schreber*, Säuget., III, p. 442.

It may be further noted that Cuvier's diagnosis is evidently from Gmelin and not from Linnæus, for he says: "Noir, à cinq lignes parallèles, blanches sur le dos;" and that his "*Viverra putorius* L." should unquestionably stand *Viverra putorius* Gm. It also renders it probable that Cuvier's citation of "*Viverra mephitis* L." under his "le chinche" should also read *Viverra mephitis* Gm., as Mr. Howell has already suggested (N. Am. Fauna, No. 20, p. 14).

†"Si... nous venons à examiner en lui-même l'animal auquel Buffon a appliqué le nom de *zorille*, et qu'il a représenté Hist. Nat. in-4°, tome XIII, pl. 42 [lege xli] nous trouvons qu'il ressemble par les dents, par les ongles et par la forme, comme par la grandeur, à notre *putois d'Europe*."—*G. Cuvier*, Ann. du Mus. d'Hist. Nat., IX, 1807, p. 445.

†Bull. Am. Mus. Nat. Hist., XIV, 1901, 330.

pate is mainly Kalm while *V. putorius* is mainly Catesby. The Kalm element is therefore the saving feature in each case; but if *putida* from Cuvier cannot be used for the skunk of eastern Pennsylvania and New Jersey, neither can *putida* from Boitard be used for it, on account of the prior use of the name in the same genus (*i. e.*, *Mephitis*) by Cuvier. It may, however, be well to throw out *putida* as untenable, on accounts of its composite, very slight and wholly unsatisfactory basis.

From the foregoing it is evident that I recede in no essential point from any of the positions assumed in my first paper, and that consequently I accept none of Mr. Howell's conclusions as formally stated by him in the summary at the close of his paper. They all depend, as said at the beginning of this article, upon the acceptance of the much discussed Catesby plate as a satisfactorily identifiable figure of the North Carolina *Spilogale*. With Mr. Howell's plate before them, I think few mammalogists will be able to agree with Mr. Howell on this point.